

# ABSTRACT OF THE DISCLOSURE

Processing to confirm management information during starting processing of a disk device is completely executed in a short period of time without scanning a data area to thereby minimize the period of time for the starting processing. The management information confirming processing can be executed after the disk device notifies the condition to the host or the user. Therefore, the response characteristic of the disk device is improved. Authentication information to certify that management information recorded on a disk is valid and invalidating information to invalidate the authentication information are provided. When the invalidating information to invalidate the authentication information is present, it is possible to determine that the management information is invalid or is possibly invalid. When the invalidating information to invalidate the authentication information is absent, it is possible to determine that the management information is valid according to the authentication information.